

Remarks

Claims 1 and 3 to 25 are pending in the application, of which claims 1, 17 and 25 are independent claims. No claims are amended herein. No claims are newly canceled. No new Claims have been added. Reconsideration and further examination are respectfully requested.

No new matter is believed to have been introduced to the application by this amendment.

Claim Rejections – 35 U.S.C. §103

Claims 1, 3 to 7, 9 to 21 and 23 to 26 were rejected under 35 U.S.C. §103(a) over Halvorson (US Patent No. 4847764), Allen, III (US Patent No. 4731726, hereinafter “Allen”) and Bui et al. (U.S. Pub. No. 2003/0140928 A1, hereinafter Bui). Claims 8 and 22 were rejected under 35 U.S.C. §103(a) over Halvorson, Allen and Kaufman et al. (US Patent. No. 5267174, hereinafter “Kaufman”). These rejections are hereby traversed and reconsideration and withdrawal thereof are respectfully requested.

Independent Claim 1

Independent Claim 1 relates to a patient care system, comprising a plurality of medication administration devices for delivering medication to a plurality of patients, a first central processing unit (CPU) located at a patient’s bedside and in communication with a subset of the plurality of medication administration devices and configured to monitor the subset of the plurality of medication administration devices and display results of the monitoring. The system further comprises a memory associated with each medication administration device for storing medication administration information associated with the medication delivered to each patient, the medication administration information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter. The system further comprises a second CPU in communication with the first CPU over a hospital network, the second CPU located at a nursing station and configured to report patient information pertaining to a hospital unit. The system further comprises a central processor configured to receive medication administration information from each of the plurality of medication administration devices, a central computer display connected to the central processor and configured to display a color coded display of status and schedule information for all drug administrations to the plurality of patients, a database operatively connected to the central

processor for storing medication administration guidelines representing acceptable values for the plurality of medication administration parameters, and means for communicating medication administration information from each of the plurality of medication administration devices to the central processor. The first CPU is configured to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period. The central processor is further configured to compare the parameter values to the acceptable values for the parameters in the medication administration guidelines. The central processor is further configured to display a list of ongoing infusions to the plurality of patients. The central processor and the CPU are communicatively coupled via a local area network.

"All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). MPEP 2143.03. It is respectfully submitted that the Office Action has failed to judge the patentability of Claim 1 by considering all claim features recited in Claim 1.

The Office Action concedes that the combination of Halvorson and Allen does not teach the "first central processing unit," "the second CPU," and that "the first CPU is configured to receive an alarm generated and broadcast the received alarm after a predetermined period." *See*, Office Action, page 4, lines 15-20. The Office Action cites Bui's paragraphs [0015] to [0023] as teaching the first CPU and the second CPU recited in Claim 1 of the present application. The first CPU of Claim 1 is recited to have at least the following features: (1) the first CPU is located at a patient's bedside, (2) the first CPU is in communication with a subset of the plurality of medication administration devices, (3) the first CPU is configured to monitor the plurality of medication administration devices, (4) the first CPU is configured to display results of the monitoring, (5) the first CPU is configured to receive an alarm generated by one of the plurality of medication administration devices, and (6) the first CPU is configured to broadcast the received alarm after a predetermined period. To establish a prima facie case of obviousness, the Office Action must therefore establish that the applied references at least teach or suggest the above-listed features of the first CPU recited in Claim 1.

Bui discloses a system and a method of providing medical treatment, such as medication, to a patient (abstract). Applicant has studied the Bui reference and finds that Bui discloses the following medical processors: the pharmacy computer 104, the central system 108, the digital

assistant 118, the infusion pump 120 and the processor 202. It is not clear which one of these elements is considered by the Office Action to be analogous to the first CPU recited in Claim 1. However, none of these computers (or processors therein) are seen to receive an alarm from a medication administration device, which computer broadcasts after a predetermined time period.

In support of the conclusion by the Office Action that Bui teaches the claimed alarming feature, the Office Action seems to have cited every occurrence of the phrase “alert” in the Bui specification. *See*, Office Action, page 4, last line. However, none of the cited paragraphs of Bui are seen to teach the “alarm” feature recited in Claim 1 of the present application. For example, in paragraph [0048], Bui teaches that “the patient care system 100 will *alert* the pharmacist and/or clinician 116.” In paragraph [0112], Bui teaches that “the clinician 116 is *alerted* on digital assistant 118 and/or cart 132.” In paragraphs [0130] and [0131], Bui teaches a closed loop infusion therapy management system, which “*alerts* the pharmacy of the need for additional infusion bags.” In paragraph [0134], Bui teaches that “[t]he pharmacy is *alerted in real time* (emphasis added).” In paragraph [0135], Bui teaches that “the clinician 116 is *alerted* on the digital assistant 118.” In paragraph [0137], Bui teaches that the system 100 *alerts* the pharmacist “that infusion orders require authorization.” In addition, in paragraph [0137], Bui teaches that “digital assistant 118 *alerts* the clinician 116 that the infusion order should be administered.” It is respectfully submitted that there is simply no teaching or suggestion Bui that these alerts are broadcast after a predetermined period.

By contrast, the programs of the care management system 30 of the present application control alarms or alerts generated by one of the modular applications, for example, “to receive an alarm generated by one of the subset of the plurality of medication administration devices and broadcast the received alarm after a predetermined period,” as recited in Claim 1 of the present application. Alarms are routed automatically to the appropriate video display. For example, an occlusion alarm generated by a pump 92 may remain local for a predetermined period. After that period the patient’s bedside computer 80 may then broadcast the alarm by causing the alarm to be communicated over the LAN 50 to alert other hospital staff of a potential problem or to cause a particular person responsible for the care of a patient, such as, for example, a physician or nurse, to be paged. Therefore, the system and method disclosed in the present application provide a healthcare professional the opportunity to correct a situation before the alarm is escalated to a

wider group of healthcare professionals. It is respectfully submitted that Bui does not teach or suggest at least the alarm feature recited in Claim 1 of the present application.

Halvorson and Allen are not seen to remedy the above-described deficiency of Bui because the Halvorson and Allen are seen to be silent about the claimed alarm feature.

At least for the above reasons, Claim 1 is believed to be allowable over the applied references. Reconsideration and withdrawal of the rejection of Claim 1 are respectfully requested.

Independent Claim 17

Claim 17 relates to a computer-implemented method for centralized monitoring of medication administration for a plurality of patients, comprising monitoring medication administration information associated with medication delivered to each patient, the medication administration information including a plurality of medication administration parameters and a parameter value associated with each medication administration parameter, storing a database of medication administration guidelines representing acceptable values for the medication administration parameters, communicating the medication administration information and the medication administration guidelines to a central location, comparing, on a computer at the central location, the parameter values to the acceptable values for the parameters in the medication administration guidelines, said acceptable values comprising a soft limit and a hard limit, operating a medication administration device by issuing an alarm if one of said parameter values contravenes its corresponding hard limit; and providing, using the computer at the central location, a visual indication on a computer display at the central location if one of the parameter values contravenes its corresponding soft limit in the medication administration guideline, and requiring an acknowledgment from a user before operating the medication administration device using a medical administration parameter contravening a corresponding soft limit.

The Office Action cites Halvorson as teaching “the soft and hard limits.” *See*, Office Action, page 17, item 16. However, in the cited portion, Halvorson teaches that Halvorson’s system provided “the ability to limit the minimum and maximum times between doses.” There is simply no teaching of a “hard limit” whereby a medical administration device is operated by issuing an alarm when a parameter contravenes the hard limit. Also, there is no mention or suggestion in Halvorson of a soft limit, whereby an acknowledgement is required from the user

before operating the medication administration device if a medication administration parameter contravenes the soft limit.

It is therefore respectfully submitted that the Office Action has failed to establish a *prima facie* case of obviousness with respect to the “soft and hard limits” recited in the present application by failing to consider all words in Claim 17 in judging the patentability of Claim 17 against the prior art. In this regard, the other applied references are not seen to remedy the above deficiency of Halvorson. The Office Action does not contend that Allen or Bui teach the hard limit/ soft limit features either.

Based on the above, Claim 17 is believed to be allowable over the applied references. Reconsideration and withdrawal of the rejection of Claim 17 are respectfully requested.

Independent Claim 25

Claim 25 relates to a computer implemented method of administering medication to a patient in a hospital. The method comprises: reviewing, at a pharmacy computer, a medication order prescribed by a physician, checking, at the pharmacy computer, the medication order for incompatibilities with the patient’s record, transferring the medication order to a nursing station following the checking for incompatibilities, programming a clinical device connected to the patient and communicatively coupled with the pharmacy computer with medication delivery parameters, verifying, at the pharmacy computer, the medication delivery parameters, and if the verification passes, then administering the medication order to the patient using the clinical device according to the verified medication delivery parameters, and if the verification fails, then sounding an alarm at the pharmacy computer, allowing a user to correct or override, in real-time, the medication delivery parameters; and administering the medication order to the patient using the clinical device according to the corrected or overridden medical delivery parameters.

The Office Action rejects Claim 25, citing that Bui teaches allowing a user to correct or override, *in real time*, medication delivery parameters. Applicants respectfully disagree. Bui’s teaching of allowing a patient’s physician to activate an order is in the context of activating a prescription for a patient. The “immediate activation” taught by Bui simply leads to the next step of creating a prescription label. In contrast, the method recited in Claim 25 uses the real-time override by a user to administer the medication order to the patient. Furthermore, the manual override feature is skipped if verification of medication delivery parameters passes. In that case,

the medication order is administered to the patient according to the verified medication delivery parameters. By contrast, Bui teaches that a user is always allowed to correct medication parameters. Therefore, by teaching that a user can always override an order, Bui is seen to teach away from the selective “real-time overriding” recited in Claim 25 of the present application.

The other applied references are not seen to remedy this deficiency of Bui. The Office Action has also conceded that Allen and Halvorson do not teach the “real-time overriding” feature recited in claim 25 of the present application.

Based on the above arguments, it is respectfully submitted that Claim 25 is allowable over the applied references. Reconsideration and withdrawal of the rejection of Claim 25 are respectfully requested.

The other claims currently under consideration in the application are dependent from their respective independent claims discussed above and therefore are believed to be allowable over the applied references for at least similar reasons. Because each dependent claim is deemed to define an additional aspect of the invention, the individual consideration of each on its own merits is respectfully requested.

The absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be other reasons for patentability of any or all claims that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment or cancellation of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment or cancellation.

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In light of the amendments and remarks above, this application should be considered in condition for allowance and the case passed to issue. If you have any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Date: June 23, 2010

DM_US 25549037-1.080623.0407